Support for Amendment

New claims 54-64 are supported in part by the original claims and by the specification on page 9, line 26 through page 12, line 5; page 26, line 26 through page 27, line 17; page 49, line 4 through page 54, line 19; and page 57, line 29 through page 61, line 25. This amendment contains no new matter.

REMARKS

Claims 1-53 are canceled without prejudice to their further prosecution in divisional and/or continuation applications. The claims now active in the application are specifically drawn to nucleic acid molecules that encode the polypeptide of SEQ ID NO:2. Claims 54-64 are active and pending in the application.

Sphingolipids serve as important signaling molecules to such diverse processes like cell growth, differentiation, and cell death. The novel sphingosine kinase (SphK) of the presently claimed invention contributes to signaling by forming sphingosine-1-phosphate, a potent inhibitor of cell death. Furthermore, over-expression of SphK inhibits chemotactic motility of several transformed cells line independently of cell surface receptors by acting through sphingosine-1-phosphate. Thus, SphK plays an important role in cellular regulation of processes linked to human disease, such as cancer. The claims of the present invention are drawn to a nucleic acid molecule that encodes a novel SphK polypeptide, which is represented by SEQ ID NO:2.

Rejection of claims under 35 U.S.C. § 112, first paragraph

The rejection of the claims as failing to satisfy the written description requirement and the enablement requirement under § 112, first paragraph has been obviated by appropriate amendment.

Rejection of claims under 35 U.S.C. § 112, second paragraph

The rejection of the claims as being indefinite under § 112, first paragraph has been obviated by amendment.

Rejection of claims under 35 U.S.C. § 102

The rejection of the claims as being anticipated by Young *et al.* and Kohama *et al.* under § 102, has been obviated by amendment.

Objection of the claims

The objection of the claims based upon informalities has been obviated by amendment.

A copy of GenBank Acc. No. AA232646 that corresponds to reference C15 of the Information Disclosure Statement is provided. New corrected drawings of Figures 1-6 are also provided.

Applicants submit that the application is in condition for allowance. Early notice of such action is respectfully requested.

Respectfully submitted,

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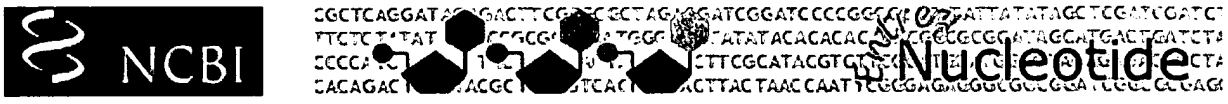

1: AA232646. zr45f08.s1 Soares...[gi:1855648] Links

IDENTIFIERS

dbEST Id:	**871993**
EST name:	zr45f08.s1
GenBank Acc:	AA232646
GenBank gi:	1855648
GDB Id:	5428407

CLONE INFO

Clone Id:	IMAGE:666375 (3')
Source:	IMAGE Consortium, LLNL
Insert length:	1252
DNA type:	cDNA

PRIMERS

Sequencing:	-41m13 fwd. ET from Amersham
PolyA Tail:	Unknown

SEQUENCE

CAGGCTGGGAATGTCACTTTATTTGGATTTGGTTCGTGGGGTGGGGGTCTCAGAACAAAC
TAGAAGGCCTTACATAGGCAGCTGGGCCCAGCCAGCTGGCGTCCTGACCCAGGACTTCAT
TCTGGCCTGTCCCCCCAAAGCATAGCCTCCACCTTCTCACCCTTCTCCAGAGGAGTCTCC
TCCACCCCCACAGGAGCTGTGGACAGGCCCTGCAGCCCTAGGGAAGGAGGAAGGGTCCTG
CAAGTAGACACTAAGGCACAGCGTGGCCCAGGGGTCATAAGGGCTCTTCTGGCGGTGGCA
TCTGCTGGGGCTTCCAGCTGGGCGGGGGCTCCACGCAACCACTGACCATCCAGAAGTAGT
TTGGGTGCACCTGGCCCTGCACGGCCTCGCTAAC

Entry Created:	Nov 27 1996
Last Updated:	Aug 6 1997

COMMENTS

This clone is available royalty-free through LLNL ; contact the IMAGE Consortium (info@image.llnl.gov) for further information.

LIBRARY

Lib Name:	Soares_NhHMPu_S1
Organism:	Homo sapiens
Organ:	mixed (see below)
Tissue type:	Pooled human melanocyte, fetal heart, and pregnant uterus
Lab host:	DH10B
Vector:	pT7T3D-Pac (Pharmacia) with a modified polylinker
R. Site 1:	Not I
R. Site 2:	Eco RI
Description:	Equal amounts of plasmid DNA from three normalized libraries (melanocyte 2NbHM, pregnant uterus NbHPU, and fetal heart NbHH19W) were mixed, and ss circles were made in vitro.

Following HAP purification, this DNA was used as tracer in a subtractive hybridization reaction. The driver was PCR-amplified cDNAs from pools of 5,000 clones made from the same 3 libraries. The pools consisted of I.M.A.G.E. clones 260232-265223, 340488-345479, and 484488-489479.

SUBMITTER

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CITATIONS

Title: WashU-Merck EST Project 1997
Authors: Hillier,L., Allen,M., Bowles,L., Dubuque,T., Geisel,G., Jost ,S., Kucaba,T., Lacy,M., Le,N., Lennon,G., Marra,M., Martin ,J., Moore,B., Schellenberg,K., Steptoe,M., Tan,F., Theising ,B., White,Y., Wylie,T., Waterston,R., Wilson,R.
Year: 1997
Status: Unpublished

MAP DATA

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